

DEFECT EVALUATION APPARATUS UTILIZING POSITRONS

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ABSTRACT OF THE DISCLOSURE

Disclosed is a defect evaluation apparatus comprising a source section having a source for  
10 generating positrons and a moderator for decelerating the positrons, a sample holding section for holding a sample to be measured, a transfer section for transferring the positrons from the source section to the sample holding section, and detection means for detecting  $\gamma$  rays emitted  
15 from the sample being measured, characterized in that the apparatus further comprises heating means for heating the moderator in a position where there is a possibility of the source being thermally damaged if there is no protection means mentioned below in the source section,  
20 and protection means for protecting the source from the heating means and heated moderator when the moderator is being heated using the heating means.